1: Hocart Y-5 (ca. 1920) 1929 OQ6 Lau OQ6
Lakemba

LAKEMBA

PHYSICAL FEATURES AND VILLAGES

Lakemba is the chief island of the Lau Archipelago south of Naiau. (See fig. 2.) Its high chief bears the titles of Roko Sau and Tui Naiau (Lord of Naiau). The island is typical of those in the dry zone of Fiji. Except for one or two summits, the hills are without forests. Their red slopes are bare or covered with bracken, with here and there a *Casuarina* or screw pine (*Pandanus*). The good soil is in pockets near the coast, where tall trees grow, if allowed, but as most of the good land is period-

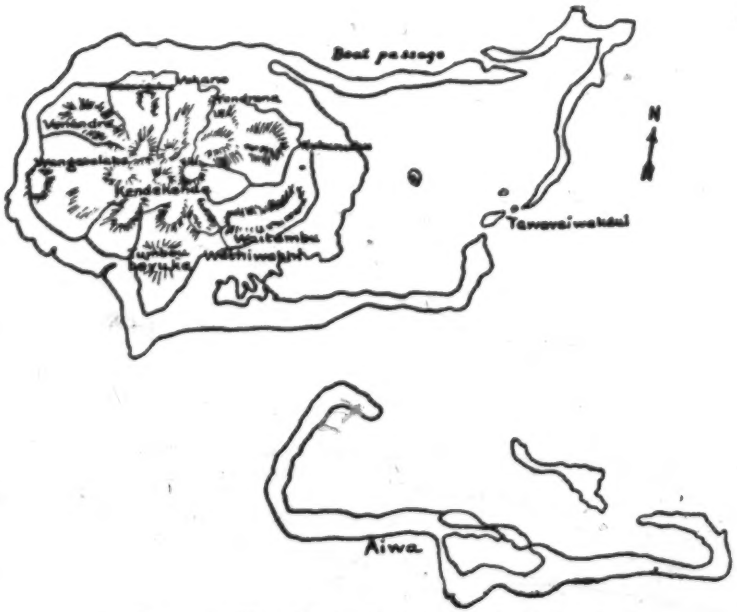

FIGURE 2.—Map of Lakemba (based on Admiralty chart).

ically fired before planting, the ground is mostly covered with reeds, long and strong, and useful for making walls and fences. There is level land only round the coast, a belt that varies in width and extends into the hills as flats suitable for irrigation. The largest of these is the fertile valley of the Nakula stream, which penetrates to the foot of Ulu i Kendekende, the highest hill.

2: Thompson E-5 (1933-1934)1940 OQ6 Lau OQ6
Kambara

133 have calm, shallow lagoons, abounding in fish and shellfish which are an impor-
262 tant part of the diet. Most of these islands are deficient in food but rich in timber and jungle produce which provide the raw materials for their industries.

132 Lau has a tropical climate. During the dry season, which lasts from April to October, the cooling southeast trades blow regularly and the seas are calm. An extensive interisland canoe traffic is carried on during these months. The remainder of the year is rainy and warm with irregular winds, especially during the "hurricane" months of January, February, and March. Fortunately hurricanes are infrequent. Drought is a constant menace on the limestone islands, for rain is quickly absorbed by the sharp, porous limestone. There are no streams and practically all the fresh water used by the natives must be col-
[312] lected in tanks and utensils. On each island there are a few water holes which are usually brackish, but the native technique of living requires little fresh water.

361 The population of the islands is concentrated in coast villages. Each village is located on a sandy flat along the beach and is usually surrounded by a coconut grove. Frequently the site is planted with breadfruit trees. Usually the village land is divided into strips, which run from the beach to the cliffs; and each strip is owned and occupied by a clan (*matanggali*, formerly a hamlet in garden land or bush clearing, see p. 35). The clans of highest rank occupy the center of the village. Their houses dominate the ceremonial ground (*rara*), where village feasts are distributed and ceremonies, dances, and games are held.

A description of the islands and villages which were studied follows.

KAMBARA

621 Kambara is a basin-shaped mass of limestone, about 4.5 miles long and 3
133 miles wide. The rim of the basin is an irregular ridge about 60 meters high. Here and there the precipitous, seaward cliff falls away, giving space to a sand flat grown with coconut palms. On such flats are situated the four villages of the island: Tokalau, Lomatchi, Nggalinggali, and Undu. Kambara is nearly surrounded by a coral reef which breaks on the northwest coast, providing the only anchorage. The village of Tokalau is located opposite the anchorage.

Kambara combines the natural resources of both volcanic and limestone islands. The heavily forested interior of the island is honeycombed with pits and caverns. Pockets of red, residual soil of an acre or so are cultivated on the eastern edge of the basin and in the center where the elevation is only about 24.4 meters. A volcanic outcrop, Ndelaioloi, rising in the northwest part of the island to a height of 143.3 meters, provides the island's best soil, and here most of the gardens are located. The main garden products are manioc and
● [137] sweet potato. A coarse quality of pandanus grows on Kambara. The principal

2: Thompson E-5 (1933-1934)1940 OQ6 Lau OQ6
Kambara

resources of the island are hardwoods, especially greenheart of India (called *vesi, Intsia bijuga*) and *mbau* (probably *Pittosporum brackenridgei*) which grow in the heavily forested interior. In Fiji the greenheart grows abundantly only on Kambara, the historic center of canoe building for the whole group and for Tonga as well.

TOKALAU

Tokalau village (fig. 3; table 1) is on the northwest shore of Kambara, at the foot of Ndelaioloi. It is the highest ranking village on the west side of Kambara and the home of the titular chief of Kambara, Tui Kambara. The village title, used on ceremonial occasions, is Nukuleka. The 125 inhabitants

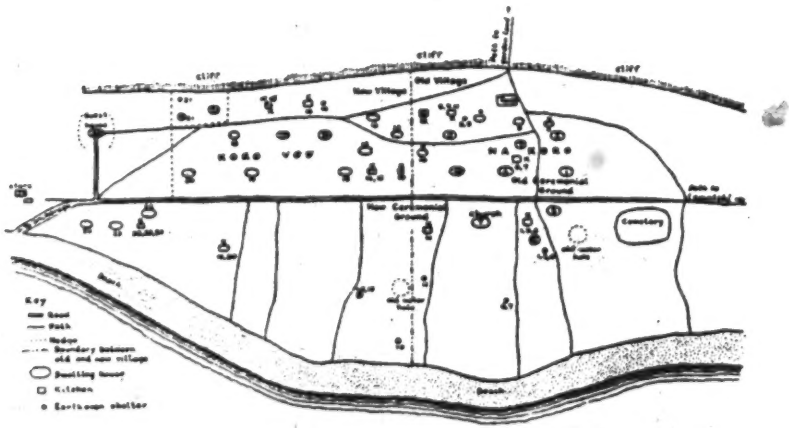

FIGURE 3.—Sketch map of Tokalau village, Kambara. (For household census see table 1, pages 14-21.)

occupy 26 sleeping houses. Tokalau is one of the few villages in southern Lau which has a Chinese store. Imported trade articles are exchanged for copra or cash. A roadway runs from the landing opposite the anchorage through Tokalau southward toward the village of Lomatchi. Most of the sleeping houses are located in a clearing on the cliff side of the road. A few, together with earth oven shelters and kitchen huts, are situated in the coconut grove on the shore side. The old section of the village is located just below a break in the limestone cliff on the most direct path from the beach to the garden land and the old fortress sites. The path also leads through the jungle across the island to the villages of Nggalinggali and Undu. The village fishing grounds extend along the adjacent shore from Vatu Loaloa to Ndaku.

2: Thompson E-5 (1933-1934)1940 OQ6 Lau OQ6

Lolousiusi, is on the west side of the island above Vuninawanawa on the west coast. At Vuninawanawa are two temporary shelters.

The two important fortress sites of Wangava are Korombalavu (Korong-gara) (p. 220), a fortified cave with one entrance in the central basin and another high up on the cliffs above the sea at Naivakevu on the north coast of the island; and Ndengei (p. 219), a fortified village on the highest point of the island, above Saurai on the west coast. A hamlet site called Nakumbua on the west Wangava beach below Ndengei is said to have been occupied by the inhabitants of Ndengei after the coming of Christianity.

My guide to the archaeological sites of Wangava was Rasolo of the Nai-votavota clan, Nggalinggali, reputed to be the only one who knows their location.

Namuka

Namuka is a relatively fertile, limestone island about 4 miles long and 1 mile wide. The maximum elevation of the island is 79.2 meters. The island is nearly surrounded by a barrier reef. Nawatchia, the only village on Namuka, is located on a small bay on the south coast. Fifty sleeping houses occupied by the 289 inhabitants are clustered around the ceremonial ground. Nawatchia has a Chinese store. Paths from the village lead to garden lands in the central basin and northwest across the island to the only anchorage. Fresh water is obtained from a reservoir in the village.

Namuka is geologically older than the other limestone islands and of them has the richest garden lands. The island produces an abundance of food to cover the needs of her population. The main garden products are manioc, sweet potato, and banana. Her principal resources are the paper mulberry (called *masi, Broussonetia papyrifera*) and other plants used in making fine types of barkcloth.

Mothe

Mothe is a circular volcanic island about 2.3 miles in diameter. It is surrounded by a barrier reef. The island rises from sandy beaches toward a central ridge, which attains a height of 179.8 meters at Ndelaimakotu hill. The hillside slopes are forest free, and fertile valleys are watered by creeks. Mothe is rich in garden lands but lacks the forest resources of the limestone islands. Besides an abundance of food, including yams and taro, as well as manioc and breadfruit, the island produces good paper mulberry.

The population of the island is concentrated at the southern end in the two villages of Nasau and Korotolu. These villages occupy adjacent sites, separated only by a narrow drainage ditch. Nasau has 260 inhabitants occupying 52 sleeping houses. Korotolu has 80 inhabitants occupying 15 sleeping houses. Nasau has a Chinese store.

3: Thompson E-5 (1933-1934) 1940 OQ6 Lau OQ6
Kambara

volcanic island of Lakemba, home of the high chief of Lau, far out of sight to the north. Visible between Komo and Namuka is the fertile volcanic island of Mothe, the point of departure of canoes for the Tongan archipelago, 400 miles to the east. Visible to the east is the uninhabited Yangasa cluster of islets, and to the southeast Fulanga and Ongea, all of forested limestone formation. Out of sight still farther to the south lie Vatoa and Ono, the southernmost islands in the Lau group.

Kambarans have relatives on most of these islands, as well as on the Moala group to the west, and in the Fijian capital city of Suva. These kinship ties demark the boundaries of their physical world. Only within the limits of this world, among their relatives, are they at home.

Kambara is called the "cave of wealth"[1] on account of her forests of hardwood. The most valued hardwood is greenheart of India (*Intsia bijuga*) used for making sailing canoes and other woodwork. Although the finest greenheart is found on Kambara, it grows well also on the neighboring islands of Wangava, Fulanga, and Ongea, but nowhere else in Fiji or Tonga. Based upon this natural monopoly, a famous woodcraft industry has developed in southern Lau. The group formerly supplied Fiji and Tonga with fast and powerful large double war canoes, and still provides many parts of Fiji with picturesque mat-sailed canoes, used extensively on inter-island voyages, and with shining carved wooden bowls, gongs and headrests.

In spite of forest resources, Kambara, Fulanga and Ongea are known in Fiji as "famine isles" on account of the dearth of arable land. The limestone base of these three islands, and of Wangava and Yangasa as well, has not decomposed sufficiently to form good garden land, and pockets of arable soil are scarce and shallow. Gardening, the usual basis of subsistence in Lau, must be supplemented in the famine group

[1] "Nggara-ni-tambua": literally whale's tooth cave, for the ivory tooth of the sperm whale represents the highest value in Lau.

3: Thompson E-5 (1933-1934) 1940 OQ6 Lau OQ6
Kambara

624 241 made, however, part of it might be set aside by the chief or the "chief of crops" to be preserved, according to the native method of burial in a leaf-lined pit. This reserve food would be used only in case of need by the whole community. In the same way, when an inter-island communal exchange is held, part of the food acquired by a famine island might also be set aside and stored. It might be possible to put the hereditary "chief of crops" in charge of the preservation of the island resources, and thus strengthen a native hereditary office which still survives but has recently lost most of its former functions and prestige.

624 226 Another such office which might prove of value if reinforced politically is that of the master fisherman (*ndau ni nggoli*). The natives complain that since the master fisherman has lost much of his former power to supervise the fishing of the island, the catch has dwindled. Fewer fish are caught daily because the fishing grounds are constantly disturbed by small fisher groups, and there are fewer large communal expeditions. If the master fisherman were backed by the government he could systematically supervise the fishing of the island. This would not only increase the food supply but also add zest to life because the natives love a large communal fishing expedition or a turtle hunt.

137 An important source of food which the natives tend to neglect today is collecting in the jungle. Bush food such as the *wangiri* and the *yangai*, which were formerly staples and are now ignored, could be utilized more than they are. *Yangai* sweetened with the *ti* root makes a particularly delicious sweet pudding. Moreover, most islands could accommodate more fruit trees such as breadfruit, Tahitian chestnut and *ndawa* (*Ponetia pinnata*), which are important as food, and since a fruit tree belongs to the man who plants it there would be no difficulty concerning proprietary rights over the fruit. Certainly there are many spots in the jungle where wild yams, also a delicious and nutritious jungle food, would

3: Thompson E-5 (1933-1934) 1940 OQ6 Lau OQ6
Kambara

grow if they were planted, and even on islands where under the post-Tongan system of land tenure the bush is free, the natives still know and respect ancient clan claims to bush land. Hence wild yams planted by a member of one clan would probably be unmolested by other clans.

A very important source of meat now neglected is the wild fowl which abounds in the jungle. Little effort would be required to teach the natives adequate trapping and snaring methods so that this food would be available even without the use of firearms.

Another important source of food now neglected is domestic animals, such as chickens and pigs. Fulanga, the island with the poorest food resources in Lau, is outstanding for its chicken raising. By means of regular feeding and proper housing in chicken coops, hundreds of chickens are raised for local consumption and for export to other islands in exchange for vegetable food. There is no reason why other famine islands such as Kambara, if sufficiently stimulated and encouraged, cannot follow Fulanga's example in this respect. The main fodder for both chickens and pigs is coconut meat, of which there is an over-production in Lau since the copra slump. Hence there is no problem of fodder for animals reducing the island food supply.

The main consideration in the raising of domestic animals is labor. The consumption of pigs has decreased markedly since the regulation that pigs must be kept outside the village in pens has been enforced. Under present conditions the Lauans lack the energy to feed these domestic animals. A little encouragement in breeding, and the infusion of new life into the economic system by means of ceremonial exchanges involving feasts might supply the necessary stimulus to increase production. Moreover, the government could greatly aid the natives in poultry raising by importing new stock to improve the breeds. This is even more important in regard to pigs than to chickens. The Lauan pigs are of the long

4: Thompson E-5 (1933-1934)1938 OQ6 Lau OQ6

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THE CULTURE HISTORY OF THE LAU ISLANDS, FIJI[1]

By LAURA THOMPSON

THE Lau Islands form the eastern border of Fiji. Lakemba in the center of the Lau group was formerly an independent chiefdom, holding all the central and southern islands in tributary relationship. The southern islands, partly of volcanic formation,[2] partly of coral limestone,[3] comprised the chiefdom's rich hinterland. Most of them lack garden land but they produce raw materials used in making important articles of exchange. Outstanding are the hardwoods[4] used for large sailing canoes. Southern Lau supplied all Fiji and also Tonga with these vessels. The type of paper mulberry[5] used for the best barkcloth and pandanus[6] used for the finest mats are also found here, and coconut of excellent quality for oil grows on all the southern islands. Based on these resources, specialized crafts have developed on the islands, which produce the finest canoes, barkcloth, and mats in Fiji. These commodities were traded with Tonga and also collected regularly as tribute to the high chief of Lakemba, who distributed part of them to other chiefdoms in Fiji through a system of gift exchange.

Although of great importance in native economy, the southern islands have offered little to attract the white man on account of their lack of fertile soil

[1] The following study is a translation of a lecture delivered to the Ethnological Colloquium of the University of Berlin in March, 1937. In its original form this has appeared in Archiv für Anthropologie, Vol. 24, No. 2, 1937. It is part of the results of nine months field work in Fiji under a Yale University-Bishop Museum fellowship. A description of the ethnographic results of the field trip are being published as a Bishop Museum bulletin. The spelling of native words follows David Hazelwood, *A Feejeean and English Dictionary* (Vewa, Fiji, 1850). Place names follow British Admiralty charts.

I express sincere appreciation to Bernhard J. Tüting for assistance in the field and particularly for his work on the native religion.

[2] Mothe and Komo Islands.

[3] Kambara (which has a volcanic outcrop), Namuka, Oneate, Fulanga, and Ongea Islands. (Also Ono and Vatoa, the southernmost islands, which are not included in this study.)

[4] Especially vesi, called greenheart of India (*Intsia bijuga* [Colebr.] Ktze.), also mbau (probably *Pittorporum* Brackenridge).

[5] Masi, masi ntchina, and ndrauthoka, forms of the paper mulberry (*Broussonetia papyrifera* Vent.). The paper mulberry is found on every island but the best quality grows only on Namuka.

[6] On Fulanga, Ongea, and Wangava.

[GA 1-151 not processed]

5: Thompson E-5 (1933-1934)1949 OQ6 Lau OQ6

133 On the other hand, the limestone islands (e.g., Fulanga) have cliffs and forested low plateaus, which tend to erode into basins whose sharp-crested rims drop steeply to the sea. They have no valleys or streams, all the rainfall sinking underground and reaching the sea by an intricate system of subterranean caverns. Except in Namuka, where the soil is relatively deep, only a thin layer of rather poor topsoil occurs in pockets in the interior basins. Such limestone soil supports a distinctive flora. Useful hardwoods, such as the greenheart of India (*Intsia bijuga*), *mbau* (*Pittosprum brackenridgei*) and *makola* (*Dysoxylum richii*), as well as other jungle plants which are absent or scarce on the volcanics, flourish on the limestones of southern Lau. However, yams do not grow well in this type of soil. Apparently these islands had no horticulture before manioc and sweet potato (*Ipomoea batatas*) found their way to Lau in historic times.[7]

In sum, good garden land and food are generally limited on the limestone islands but plentiful on the volcanics, while forest products are scarce on the volcanics but abundant on the limestones. Thus, the resources of the two geological types complement each other, the fifteen islands forming a naturally balanced community or self-sufficient native trade area.

The foundations of this ecological arrangement extend far back in the geological history of the region. On the basis of paleogeological evidence, Ladd and Hoffmeister[8] infer that organic life in the island community under consideration began during the Lower Miocene before the Lau group had emerged above sea level, and it played a major part in the formation of the various islands and in laying the foundations for their present ecological structures. As soon as the islands projected above the level of the sea and the processes of erosion began to develop topsoil, we assume that the fundamental biotics of each island began to develop—limestone biotics on the limestones and volcanic biotics on the volcanics.

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shrubs and stunted trees; and scattered *Pandanus* and *Casuarina*. The dominant littoral species are: *ndilo* (*Calophyllum inophyllum*), *vutu* (*Barringtonia speciosa*), *evu* (*Tournefortia argentea*), *evueve* (*Hernandia peltata*), *nawanawa* (*Cordia subcordata*), *tatang-ngia* (*Acacia lauriflora*), *vevendu* (*Scaevola koenigii*), *tavola* (*Terminalia littoralis*), *ndrala* (*Erythrina indica*), etc. Besides these there are the usual *Pandanus*, numerous vines and groves of coconut palms."

[7] According to Bryan (MSS.): "All the limestone islands . . . support one type of forest. It is made up throughout the group of the same fifty or so species of trees and tall shrubs, with an undergrowth of *Piper* (*wangawa*), bird's eye pepper (*rokete*), ferns, herbs and several vines. The luxuriance alone depends upon the size and elevation of the island. There is an interesting, rapid and progressive increase in the number of species and the height of growth, from the nearly bare rocks, such as Latei Viti and Bacon Island with but two or three species of prostrate herbs, to the splendid forests of Kambara, Mango, etc. First to appear after the herbs and vines are low, stunted trees of such widespread species as *Hernandia peltata*, *Tournefortia argentea*, and a *Ficus* with orange fruit commonly eaten by pigeons. A few of the small islands have native palms in considerable numbers. *Pandanus* and *Casuarina* appear early in the scale."

[8] Ladd and Hoffmeister, 1945; Ladd, 1934.

9: Bryan

Lau QQ6

131, 133, 136, 137

/Information in text on the location, topography, geology, fauna and flora of each of the forty islands in the Lau group will be found in category 13./

133 islets and rocks a characteristic "mushroom" shape. The surface,
[137] even on the small low islands, is densely covered with forest, and
is comparatively moist. The indentations are choaked with mangrove
swamps. The highland is marginal with the center a flat or basin.

133 In contrast to this, the islands of volcanic material are
137 smoother with rounded ridges and peaks. The beaches are predominately
sandy with small areas of dark basalt at the points. The slopes above
the everpresent fringe of coconut palms and cosmopolitan littoral trees
are generally grassy with low scrub and scattered Pandanus and
Casuarina trees. Although the slopes are dry there is usually a small
stream in each valley. The highest elevation is in general toward the
center. This summit may bear a tuft of trees, if of sufficient
elevation (and also when not cleared off by the natives), but these
are simply lowland species which have crept up the valleys.

133 Most of the larger islands, however, are a mixture of limestone
and volcanic material. This typically takes the form of a ring of
limestone hills enclosing a basin of volcanic material. Vanua Mbalavu
is made up of a chain of volcanic hills tapering off into limestone
at both ends. On some of the islands, such as Katafanga, the transition
between the two is as sharp as if cut by a knife.

Plant Life.

137 The vegetation depends primarily on the geological formation.
All the limestone islands and the limestone portions of the mixed
islands support one type of forest. It is made up throughout the
group of the same fifty or so species of trees and ~~shrubs~~ tall shrubs,
with an undergrowth of Piper (wangawa), bird's eye pepper (rokete),
ferns, herbs and several vines. The luxurience alone depends upon
the size of ~~the~~ and elevation of the island. There is an interesting
rapid and progressive increase in the number of species and the height
of growth, from the nearly bare rocks, such as Latei Viti and Bacon
Island, with but two or three species of prostrate herbs, to the

7 [i.e. limestone islands--analyst]

137 splendid forests of Kambara, Nggo, etc. First to appear after the herbs and vines are low, stunted trees of such widespread species as Hernandia peltata, Fournefortia argentea, and a Ficus with orange fruit commonly eaten by pigeons. A few of the small islands have native palms in considerable numbers. Pandanus and Casuarina appear early in the scale.

The dominant plant over much of the volcanic islands is a plume grass, Eulalia japonica, called "nasau" or "ngasau" by the natives. There are also several species of wiry ferns, including the "staghorn"; a low scrub, made up of about half a dozen widespread species of shrubs and stunted trees; and scattered Pandanus and Casuarina. The dominant littoral species are: dilo (Calophyllum inophyllum), vutu (Barringtonia speciosa), evu (Fournefortia argentea), evuevu (Hernandia peltata), nawanawa (Cordia subcordata), tatang-gia (Acacia lauriflora), vevendu (Scaevola koenigii), tavola (Terminalia littoralis), drala (Erythrina indica), etc. Besides these there are the usual Pandanus, numerous vines, and groves of coconut palms.

About 390 species of plants were collected in the outlying islands of Fiji, 233 being from Lau. This collection represents the majority of the common plants of the region.

Animal Life

136 Except for birds and insects there is a povety of animal life in Lau. The only mammal noted was a rat. About a dozen species of water birds and over 28 species of land birds were encountered throughout the group. Two species of land snakes and one banded water snake were caught. Lizards of various species were abundant. The largest was the green "vokai". Various sizes of geckos and skinks were more abundant. Land crabs, including the large "coconut" crab and hermit crabs were present in quantity. The insect life will form the subject of a separate report, when the extensive collection has been mounted and identified.

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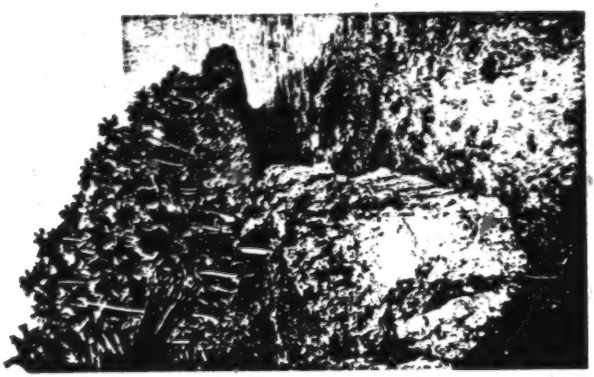
[137]



3. A typical small coral limestone island, off the N.W. side of Ongea Ndriti. It rises percipitously from the undercut ledge to a rough flat top covered with native fan palms.

4. The east face of Ongea Levu rises in a sheer wall, 100 to 200 feet high, covered with ~~dddd~~ stunted scrub and occasional wind swept fan palms.

[p.90]

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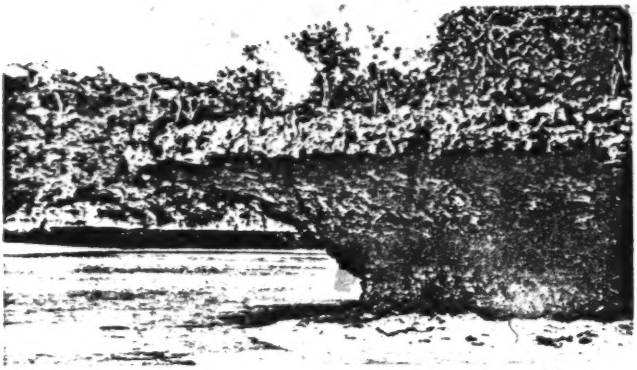
[139]



5. The undercut beach at low tide. This view is in the channel between Ongea Levu and Yanuia Islands. The lip of the ledge is about 9 feet above the sand flat or low tide level.

6. Naiambo islet from the W.N.W.

[p. 91]

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10. Mothe and the northern islets of Karoni I. from the summit of Karoni peak (120 feet), shown in 11. Note the little native cutter making for the passage.

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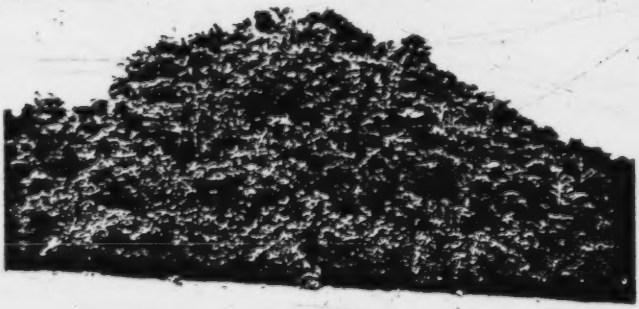

11. The steep, wooded main limestone peak of Karoni I., 120 feet high.

[p.93]

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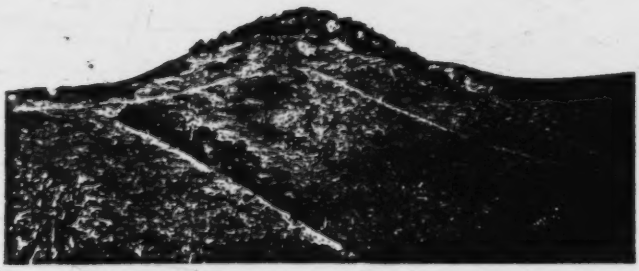
12. A typical valley on Mothe. In contrast to the heavily wooded limestone, the slopes of the volcanic islands are covered with grass, ferns, scrub, Pandanus and Casuarina trees, with groves of coconut palms toward the sea.



13. The central knob of Mothe is capped with low-land forest, which has worked its way up the valley bottoms.

[p.94]

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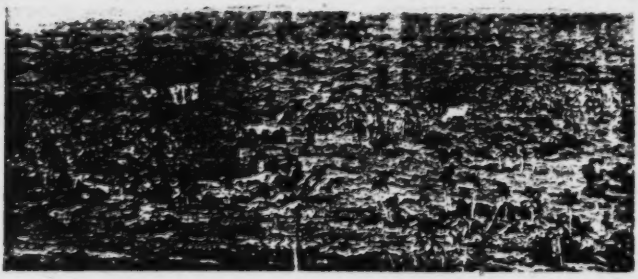
14. Delai oloi (470 feet), a volcanic peak on an otherwise limestone island. In the foreground are gardens cultivated by the natives. Kambara I.



15. From the summit of Delai oloi one obtains a fine view of the wooded central limestone basin of Kambara, stretching away to the S.S.E.

[p.95]

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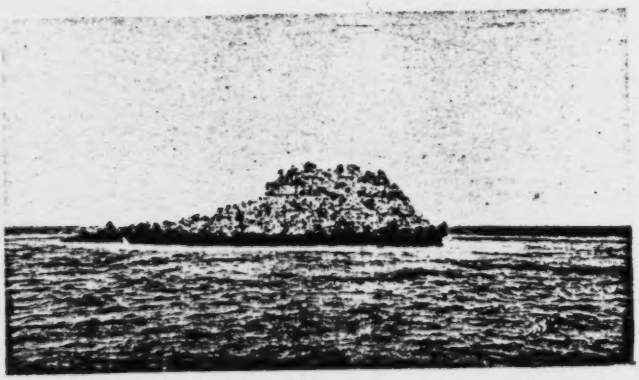

24. Latei Tonga, looking E.S.E.

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25. The northern third of Katafanga I. is of coral limestone formation, the southern two-thirds is volcanic. This is the abrupt transition between the two very distinct types; steep, heavily wooded limestone on the right; gentle, grassy volcanic slope covered with coconut palms on the left.

[p. 100]

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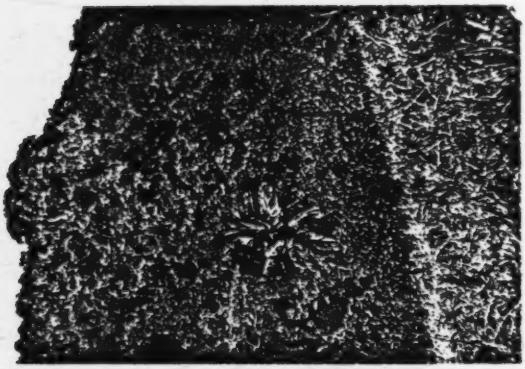


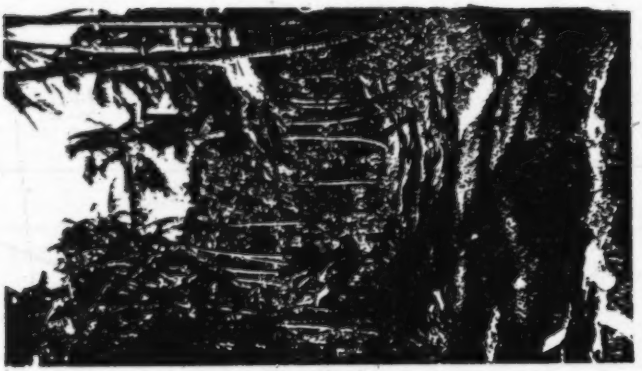
(Bottom)

26. A highly elevated cliff of coral limestone, rising behind a grassy volcanic hill, on the N.E. side of Tuvutha'.

27. The volcanic basin, surrounded by coral limestone hills on the island of Vanua Vatu. This vegetation is typical of volcanic soil.

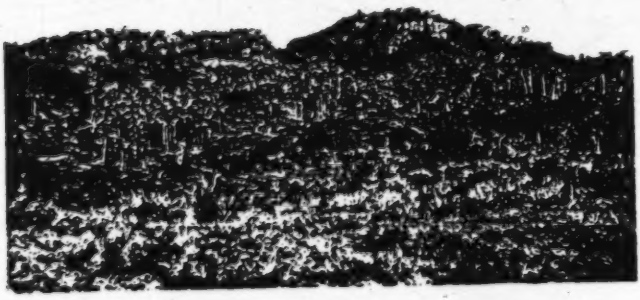
[p 101]

137
487



57. All the villages on Vanua Mbalavu are connected by good paths. This is a typical section of one, north of Lomaloma.

133



58. Central basin of Thikombia-i-Lau, of mixed volcanic and limestone formation. Looking east from near the center.

[p. 105]

133

39. The Sovu Islets, looking N.W.

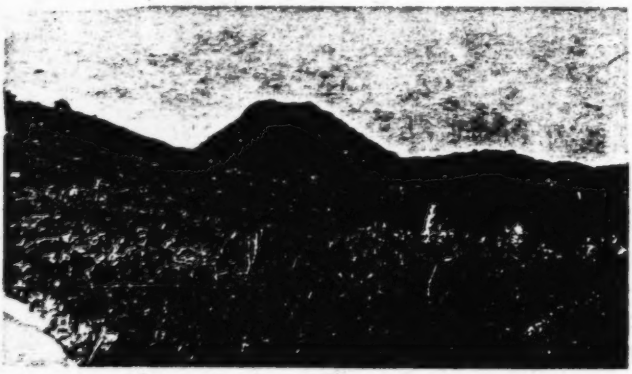
● 137

40. Native fan palms on the smallest, eastern Sovu islet.

[p. 106]

133
139

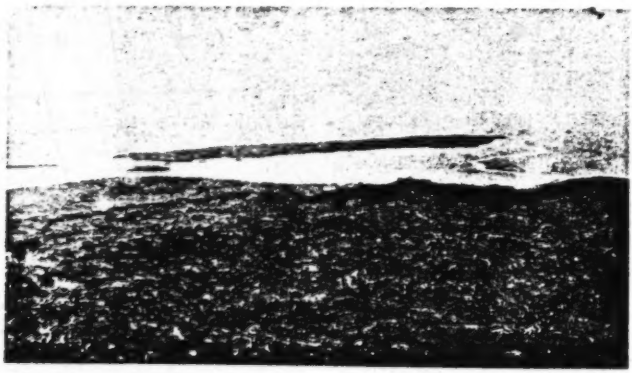
47. The 610 foot, flat-topped peak on Naitaumba, looking S.SW. along the eastern rim of the central basin.



48. Na Koro Levu, elevated limestone peak (840 feet), and the north slope of the grassy volcanic ridge, Dilla Thata. Vathata I.

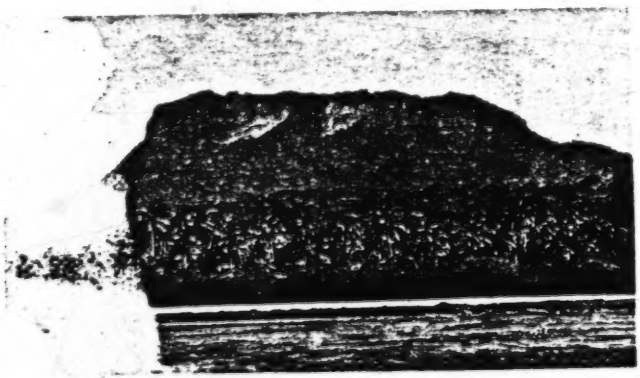
[p. 110]

133



49. East slopes of Yathata and the island of Kaimbu, from the summit of Na Koro Levu, (840 feet).

133
137



50. The highest elevation in Lau, Dillana, 1030 feet high, of upraised coral limestone, Vatu Vara'i.

[p. 111]